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September 15, 2005

Kitty Martin Manager, In Use Controls Section California Air Resource Board

RE: California Air Resource Board Diesel Off-Road Equipment Measure Preliminary Regulatory Concepts

Dear Kitty:

Vermeer Mfg. Co. is an Original Equipment Manufacturer of specialized construction equipment for the installation and refurbishment of underground utilities and organic waste reduction equipment. This equipment utilizes diesel engines from 4.7 to 1000 horsepower.

I have recently attended the workshops held in El Monte, CA on July 13th and August 30th regarding the proposed Diesel Off-Road Equipment Measure Regulatory Concepts. I have reviewed the proposal that was presented at these workshops and have the following comments for your consideration:

1. In the purpose it is stated that the reductions of PM emissions from off-road equipment should be as much as technically and economically feasible. How will CARB determine economic feasibility? The customers of Vermeer equipment are family businesses with very few pieces of equipment. Requiring some of these owners to retrofit existing equipment or forcing them to purchase new equipment to meet the requirements of the proposal could create an economic hardship.

2. In the applicability section it is stated that the rule applies to any person who sells, offers for sale, leases, and purchases, owns, or operates any mobile diesel-fueled off-road equipment. How does this statement affect OEM's who are using the EPA Transition Program for Equipment Manufactures? As an OEM, we currently sell to our independent dealer who is located in California. Does this statement require Vermeer to install the approved VDECS thus preempting 40 CFR 1039.625? Including provisions for new equipment to have a period before they would be required to meet the proposed regulation should be considered (i.e. x years or y hours whichever comes first).

3. It is my understanding that the proposal is to apply to in-use machines in an effort to accelerate the replacement of older engines. If an owner



decides to have a CARB approved VDECS installed on his machine instead of purchasing new, the installation of these devices can affect some very important equipment considerations other than emission reduction. These include but are not limited to:

 ease of access to the VDECS for proper maintenance and regeneration

b. having proper operation and maintenance information readily available to the operator on the VDECS

c. the location of the VDECS and its affect on access for other equipment maintenance requirements

 d. affect on operator comfort due to increase in radiant heat generation and sound increases over equipment manufacturers published values

e. the effect on operation of the machine by changing lines of sight or operational characteristics

An owner may interpret the CARB approval of a VDECS for emission reduction as an approval for installation without any considerations to some of the machine design issues that need to be evaluated. Who does CARB intend to have responsible for evaluating these design considerations?

4. Within the regulation it has been assumed that an older piece of equipment can be retrofitted with a higher Tier level engine. Based on experiences of upgrading engines to meet new emission requirements, this assumption is not practical in most cases. The newer emission engines include advanced electronics, the inclusion of charge-air-coolers, larger air cleaners, larger mufflers, and have changed physical dimensions in some cases. These new engines have required OEM's to redesign main structural elements, electrical systems, and engine compartment layouts to accommodate these changes.

Vermeer Mfg. Co. does support the EPA and CARB efforts to reduce air pollution generated from diesel engines. The proposed CARB measure for in-use machines may require that OEM's develop VDECS packages that can be effectively and properly installed on machines. The diversion of OEM resources to meet this CARB initiative from the EPA Tier IV requirements and timelines should be evaluated as part of the rulemaking process.

Best regards,

Thomas R. Haley, PE

Manager of Engineering Services

Vermeer Mfg. Co.